

CLAIMS

1. A method for facilitating supply chain collaboration in a network environment, said supply chain including an enterprise and at least one supplier, the method comprising:

generating and transmitting an unconstrained forecast to said at least one supplier;
receiving, from said at least one supplier, a supplier capability statement;
generating a constrained forecast using at least one supplier capability statement;
transmitting said constrained forecast to said at least one supplier; and
receiving, from said at least one supplier, a formal commitment to product a needed supply indicated in said constrained forecast.

2. The method of claim 1, wherein said generating said constrained forecast includes:
performing a squared set analysis upon said supplier capability statement; and
adding capacity constraints during said analysis.

1 3. The method of claim 1, wherein said generating
2 and transmitting said unconstrained forecast to said at
3 least one supplier includes receiving an aggregated
4 demand from a group associated with said enterprise, said
5 aggregated demand exploded into time-bucketed materials
6 requirements for said group.

1 4. The method of claim 3 wherein said group
2 includes a division of said enterprise which shares
3 common materials requirements.

1 5. The method of claim 4 wherein said group is
2 distributed among a plurality of site locations for said
3 enterprise over said network environment.

1 6. The method of claim 3, wherein said supplier
2 capability statement is transmitted to said group, said
3 group associated with said at least one supplier.

1 7. The method of claim 3, wherein said supplier
2 capability statement includes a greatest amount of
3 materials said at least one supplier is able to make
4 available to said group.

1 8. The method of claim 2, wherein said performing
2 said squared set analysis includes feeding said supplier
3 capability statement into a constraint-based optimization
4 tool.

1 9. The method of claim 1, wherein said constrained
2 forecast includes a demand for materials factoring in
3 resource constraints.

1 10. The method of claim 8, wherein a squared set
2 build plan is generated by said constraint-based
3 optimization tool.

1 11. The method of claim 10, wherein said squared
2 set build plan is fed to a materials resource planning
3 engine and requirements for a squared set constrained
4 forecast are generated, said requirements directed to a
5 site location for said enterprise.

1 12. The method of claim 11, wherein said squared
2 set constrained forecast is transmitted to said at least
3 one supplier, said at least one supplier associated with
4 said site location for said enterprise.

1 13. The method of claim 1, wherein said formal
2 commitment includes an agreement by said at least one
3 supplier to provide said needed supply to said
4 enterprise.

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1 14. The method of claim 1, further comprising:
2 monitoring inventory levels at a replenishment
3 service center by said at least one supplier based upon
4 said formal commitment;
5 refilling inventory items at said replenishment
6 service center according to said formal commitment;
7 facilitating delivery of said inventory items to
8 a site location for said enterprise by transmitting a
9 pull signal to said replenishment service center; and
10 receiving said inventory items in response to
11 said pull signal.

1 15. The method of claim 14, wherein said monitoring
2 said inventory levels at said replenishment service
3 center includes providing said site location for said
4 enterprise, said at least one supplier, and said
5 replenishment service center a visibility of said
6 inventory materials in transit.

1 16. The method of claim 14, wherein said monitoring
2 said inventory levels by said at least one supplier
3 includes maintaining a minimum supply level.

1 17. The method of claim 16, wherein said minimum
2 supply level is measured in days of supply at said
3 replenishment service center.

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1 18. The method of claim 17, wherein said days of
2 supply is calculated by rationalizing current units of
3 inventory against expected consumption.

1 19. The method of claim 18, wherein said expected
2 consumption represents said constrained forecast.

1 20. The method of claim 14, wherein said monitoring
2 said inventory levels is performed by accessing an
3 inventory status provided by said replenishment service
4 center.

1 21. The method of claim 14, wherein said site
2 location for said enterprise monitors said inventory
3 levels.

1 22. The method of claim 14, wherein said refilling
2 said inventory items includes:

3 providing an advance ship notice to said
4 replenishment service center and said site location for
5 said enterprise; and

6 updating a database to indicate when said inventory
7 items are shipped.

1 23. The method of claim 14, wherein said
2 transmitting said pull signal to said replenishment
3 service center includes providing a pull request number
4 to said replenishment service center requesting delivery
5 of said inventory items, wherein a transfer order is
6 generated at said replenishment service center in
7 response to said pull signal.

1 24. The method of claim 23, wherein a goods issued
2 document is created in response to preparing said
3 inventory items for delivery, said goods issued document
4 including said pull request number.

1 25. The method of claim 24, wherein a goods receipt
2 is generated upon delivery of said inventory items, said
3 goods receipt associated with said pull request number.

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1 26. A storage medium encoded with machine-readable
2 computer program code for facilitating supply chain
3 collaboration in a network environment, said supply chain
4 including an enterprise and at least one supplier, the
5 storage medium including instructions for causing a
6 computer to implement a method comprising:
7 generating and transmitting an unconstrained
8 forecast to said at least one supplier;
9 receiving, from said at least one supplier, a
10 supplier capability statement;
11 generating a constrained forecast using at least one
12 supplier capability statement;
13 transmitting said constrained forecast to said at
14 least one supplier; and
15 receiving, from said at least one supplier, a formal
16 commitment to product a needed supply indicated in said
17 constrained forecast.

1 27. The storage medium of claim 26, wherein said
2 generating said constrained forecast includes:
3 performing a squared set analysis upon said supplier
4 capability statement; and
5 adding capacity constraints during said analysis.

1 28. The storage medium of claim 26, wherein said
2 generating and transmitting said unconstrained forecast
3 to said at least one supplier includes receiving an
4 aggregated demand from a group associated with said
5 enterprise, said aggregated demand exploded into time-
6 bucketed materials requirements for said group.

1 29. The storage medium of claim 28 wherein said
2 group includes a division of said enterprise which shares
3 common materials requirements.

1 30. The storage medium of claim 29 wherein said
2 group is distributed among a plurality of site locations
3 for said enterprise over said network environment.

1 31. The storage medium of claim 28, wherein said
2 supplier capability statement is transmitted to said
3 group, said group associated with said at least one
4 supplier.

1 32. The storage medium of claim 28, wherein said
2 supplier capability statement includes a greatest amount
3 of materials said at least one supplier is able to make
4 available to said group.

1 33. The storage medium of claim 27, wherein said
2 performing said squared set analysis includes feeding
3 said supplier capability statement into a constraint-
4 based optimization tool.

1 34. The storage medium of claim 26, wherein said
2 constrained forecast includes a demand for materials
3 factoring in resource constraints.

1 35. The storage medium of claim 33, wherein a
2 squared set build plan is generated by said constraint-
3 based optimization tool.

1 36. The storage medium of claim 35, wherein said
2 squared set build plan is fed to a materials resource
3 planning engine and requirements for a squared set
4 constrained forecast are generated, said requirements
5 directed to a site location for said enterprise.

1 37. The storage medium of claim 36, wherein said
2 squared set constrained forecast is transmitted to said
3 at least one supplier, said at least one supplier
4 associated with said site location for said enterprise.

1 38. The storage medium of claim 26, wherein said
2 formal commitment includes an agreement by said at least
3 one supplier to provide said needed supply to said
4 enterprise.

5 39. The storage medium of claim 26, further
6 comprising instructions for causing a computer to
7 implement:

8 monitoring inventory levels at a replenishment
9 service center by said at least one supplier based upon
10 said formal commitment;

11 refilling inventory items at said replenishment
12 service center according to said formal commitment;

13 facilitating delivery of said inventory items to a
14 site location for said enterprise by transmitting a pull
15 signal to said replenishment service center; and

16 receiving said inventory items in response to said
17 pull signal.

1 40. The storage medium of claim 39, wherein said
2 monitoring said inventory levels at said replenishment
3 service center includes providing said site location for
4 said enterprise, said at least one supplier, and said
5 replenishment service center a visibility of said
6 inventory materials in transit.

1 41. The storage medium of claim 39, wherein said
2 monitoring said inventory levels by said at least one
3 supplier includes maintaining a minimum supply level.

1 42. The storage medium of claim 41, wherein said
2 minimum supply level is measured in days of supply at
3 said replenishment service center.

1 43. The storage medium of claim 42, wherein said
2 days of supply is calculated by rationalizing current
3 units of inventory against expected consumption.

1 44. The storage medium of claim 43, wherein said
2 expected consumption represents said constrained
3 forecast.

1 45. The storage medium of claim 39, wherein said
2 monitoring said inventory levels is performed by
3 accessing an inventory status provided by said
4 replenishment service center.

1 46. The storage medium of claim 39, wherein said
2 site location for said enterprise monitors said inventory
3 levels.

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1 47. The storage medium of claim 39, wherein said
2 refilling said inventory items includes:
3 providing an advance ship notice to said
4 replenishment service center and said site location for
5 said enterprise; and
6 updating a database to indicate when said inventory
7 items are shipped.

1 48. The storage medium of claim 39, wherein said
2 transmitting said pull signal to said replenishment
3 service center includes providing a pull request number
4 to said replenishment service center requesting delivery
5 of said inventory items, wherein a transfer order is
6 generated at said replenishment service center in
7 response to said pull signal.

1 49. The storage medium of claim 48, wherein a goods
2 issued document is created in response to preparing said
3 inventory items for delivery, said goods issued document
4 including said pull request number.

1 50. The storage medium of claim 49, wherein a goods
2 receipt is generated upon delivery of said inventory
3 items, said goods receipt associated with said pull
4 request number.

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